

CLAIMS:

1. An evaporation device for increasing evaporation from a surface of a body of liquid into an outdoor environment at which the body of liquid is disposed, comprising at least one evaporation element which is free of any external enclosure 5 surrounding the evaporation element and preventing its exposure to said outdoor environment, said element having at least one evaporation surface wettable by said liquid and at least partially exposable, when wetted, to wind at said outdoor environment so as to allow evaporation of said liquid from said evaporation surface into said outdoor environment, whereby the rate of said evaporation and the total 10 evaporation area of said surface of the body of liquid are increased.
2. An evaporation device according to Claim 1, wherein said device further comprises means for periodically wetting said evaporation surface.
3. An evaporation device according to Claim 2, wherein said means are capable of acting to at least partially immerse said evaporation surface in said body 15 of liquid.
4. An evaporation device according to Claim 3, wherein said means comprise a ballast chamber capable of regulating the buoyancy of the device by alternately receiving thereinto a gas or a liquid.
5. An evaporation device according to Claim 4, wherein said means further 20 comprise an air compressor for forcing air into said ballast chamber, said chamber having openings to allow liquid thereinto.
6. An evaporation device according to Claim 3, wherein said means are capable of applying a mechanical force to the device to at least partially immerse said evaporation surface in said body of liquid.
- 25 7. An evaporation device according to Claim 6, wherein said means comprise an elongated rigid member movable in the direction perpendicular to said surface of the body of liquid.
8. An evaporation device according to Claim 3, wherein said means are capable of acting to rotate said evaporation surface, thereby partially immersing it 30 in said body of liquid.

9. An evaporation device according to Claim 8, wherein said means comprise an anemometer type apparatus.

10. An evaporation device according to Claim 2, wherein said means are capable of acting to pour said liquid onto said evaporation surface.

5 11. An evaporation device according to Claim 10, wherein said means comprise a liquid pump and a distribution system connected therewith.

12. An evaporation device according to Claim 1, wherein said evaporation surface is exposable to wind in a position transverse to said surface of the body of liquid.

10 13. An evaporation device according to Claim 1, wherein said evaporation surface is exposable to wind in a position substantially perpendicular to said surface of the body of liquid.

14. An evaporation device according to Claim 1, further comprising orientation means for orienting said evaporation surface in accordance with the wind direction.

15 15. An evaporation device according to Claim 14, wherein said means are capable for orienting said evaporation surface in the direction at least approximately parallel to said wind's direction.

16. An evaporation device according to Claim 15, wherein said orientation means comprise a wind vane.

20 17. An evaporation device according to Claim 1, wherein said device is capable of at least temporarily floating on said surface of the body of liquid.

18. An evaporation device according to Claim 1, wherein said at least one evaporation surface is made from a porous fabric.

19. An evaporation device according to Claim 1, wherein said at least one evaporation surface is of a corrugated shape.

25 20. An evaporation device according to Claim 1, wherein said at least one evaporation element has at least two evaporation surfaces.

21. An evaporation device according to Claim 1, wherein the device comprises a plurality of evaporation elements.

22. An evaporation device according to Claim 1, wherein said evaporation surface, when wetted, is exposable to said outdoor environment from the majority of directions.

23. An evaporation device according to Claim 1, 10 or 11, wherein said body of liquid is a pond and said device is adapted for being at least partially mounted on a bank of the pond.

24. An evaporation device according to Claim 23 when dependent on Claim 11, further comprising a scaffold adapted for being mounted on a bank of the pond and carrying said at least one evaporation element with one or more evaporation surfaces, and guiding means for guiding excess liquid used for wetting said evaporation surface back to the pond.

25. An evaporation device according to Claim 24, wherein the distribution system defined in Claim 11 is disposed at the top of said scaffold and this system comprises at least one perforated tray for receiving liquid from said pond and wetting said evaporation surfaces through the perforations.

26. An evaporation device according to Claim 25, wherein said tray is common for all the evaporation surfaces.

27. An evaporation device according to Claim 25, comprising a plurality of evaporation elements and each element is provided with its own tray.

28. An evaporation device according to Claim 24, wherein the distribution system defined in Claim 11 comprises a piping grid with a plurality of nozzles for wetting, at least indirectly, said evaporation surfaces.

29. An evaporation device according to Claim 24, wherein said scaffold comprises a bottom surface for collecting said excess liquid and preventing it from reaching the ground and seeping into the soil.

30. An evaporation device according to Claim 29, wherein said bottom surface is non-porous and constitutes the guiding means and it has a slope inclined downwardly towards said pond and is designed to extend to a pond's edge to let the excess liquid flow to the pond under gravity.

31. An evaporation device according to Claim 29, wherein said bottom surface is associated with drain pipes inclined and extending towards a pond's edge to drainage of the excess water through these pipes to the pond.

32. A kit comprising at least one evaporation device according to Claim 1, and
5 further comprising at least one positioning means for keeping said evaporation device in position on a surface of a body of liquid.

33. A kit according to Claim 32, wherein said positioning means comprises a float ring.

34. A kit according to Claim 32, wherein said kit comprises a plurality of the
10 evaporation devices.

35. A kit according to Claim 32, wherein said kit comprises a plurality of the positioning means.

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